

THE GOLDEN WEST

The first chapter is the story of the establishment of the Carnegie Botanical Laboratory on Tumamoc Hill in Tucson, up to its transfer in 1940 to the Forest Service (and to the University of Arizona in 1960).

NEW TRAILS IN MEXICO. Carl Lumboltz. Glorieta, New Mexico: The Rio Grande Press, Inc., 1971.

"The problem of water is bound to be solved at some future time, as soon as the necessity arises." Thus opens an account of an exploration of northern Sonora and southern Arizona by a European naturalist who was, in addition to recording wildlife, investigating the economic possibilities of the region. This edition is a reprint from the original (1912); it includes an introduction by ethnographer Bernard L. Fontana.

TREE RINGS AND TELESCOPES: The Scientific Career of A. E. Douglass. George Ernest Webb. Tucson: The University of Arizona Press, 1983.

This new book traces the professional life of Douglass, who was at first an astronomer working with Percival Lowell in Flagstaff. Douglass criticized the Mars research and was dismissed. He went on to found the Steward Observatory, University of Arizona, and then to develop the new discipline of dendrochronology—tree-ring dating. It was intended to serve in weather prediction, but became extremely useful as a tool for archaeology.

A WESTERLY TREND. Godfrey Sykes. Tucson: Arizona Historical Society, 1944.

Godfrey Sykes immigrated to the western United States in 1879, inspired in part by Captain Mayne Reid's *The Headless Horseman*, and he settled in Arizona in 1895. Soon afterward he became indispensable to the Lowell Observatory and Carnegie Desert Laboratory, in turn, as a mechanical engineer—some say genius—and willing explorer.

LOWELL AND MARS. William Graves Hoyt. Tucson: The University of Arizona Press, 1976.

This is a fascinating account of an Easterner's project in the West. Percival

Lowell of the New England aristocrats thought he could establish the nature of the "canals" on Mars. His sensational discoveries and theories put the Lowell Observatory and Flagstaff, Arizona, on the U. S. map.

"Lowell Observatory: A History of Discovery." Henry L. Giclas. *Plateau, the Magazine of Northern Arizona*, vol. 50, no. 3 (1978).

The author, a member of the observatory staff, recalls its activities over the decades. He points out that the work Lowell had five people carry out over a seven-year period could now be done with the help of a computer in several weeks.

Irrigation and Agriculture

Irrigation seemed to be the biggest thing in the world. It was not merely a matter of ditches and acres, but a philosophy, a religion, and a program of practical statesmanship rolled into one.—William E. Smythe, quoted in George Wharton James' *Reclaiming the Arid West* (1917).

The Period Literature

Magazine articles on reclamation in Arizona and the West during the years from 1875 to 1925 can be found in *Poole's Index to Periodical Literature* for the period before 1902, and in *Reader's Guide to Periodical Literature* after that year. In particular, see *The Irrigation Age* (1890s) and *Forestry and Irrigation* and the *National Geographic*.

Two major books also merit attention. For a broad philosophical statement of the value of irrigation, see William Ellsworth Smythe, *The Conquest of Arid America* (New York, 1900). This book became the bible of irrigation promoters, and a revised edition, published in 1905, discusses the first projects planned by the United States Reclamation Service. For a very broad and laudatory overview of federal reclamation prior to World War I, see George Wharton James' uncritical, but highly useful, *Reclaiming the Arid West* (New York, 1917).

In fiction, *Thirsty Earth* by Will H. Robinson (1937) provides a graphic sense of the turbulence that surrounded irrigation and reclamation projects in the Salt River